

IAP13 Rec'd PCT/PTO 21 SEP 2006

PTO-1390 (Rev. 07-2005)

Approved for use through 3/31/2007. OMB 0651-0021

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>		ATTORNEY'S DOCKET NUMBER <b>W002. PAT-49</b>
INTERNATIONAL APPLICATION NO. <b>PCT/US2005/009977</b>		U.S. APPLICATION NO. (If known, see 37 CFR 1.5) <b>301503729</b>
INTERNATIONAL FILING DATE <b>24 March 2005</b>		PRIORITY DATE CLAIMED <b>25 March 2004</b>
TITLE OF INVENTION <b>Method for Increasing the Production of Hydrocarbon Liquids and Gases</b>		
APPLICANT(S) FOR DO/EO/US <b>Morrow, Norman R. and Tong, Zhengxin</b>		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<ol style="list-style-type: none"> <li>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li>3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.</li> <li>4. <input checked="" type="checkbox"/> The US has been elected (Article 31).</li> <li>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))               <ol style="list-style-type: none"> <li>a. <input checked="" type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> </li> <li>6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).               <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto.</li> <li>b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ol> </li> <li>7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))               <ol style="list-style-type: none"> <li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input checked="" type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</li> <li>9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li> <li>10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</li> </ol> <p><b>Items 11 to 20 below concern document(s) or information included:</b></p> <ol style="list-style-type: none"> <li>11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li> <li>12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li>13. <input checked="" type="checkbox"/> A preliminary amendment.</li> <li>14. <input checked="" type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.</li> <li>15. <input type="checkbox"/> A substitute specification.</li> <li>16. <input checked="" type="checkbox"/> A power of attorney and/or change of address letter.</li> <li>17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.</li> <li>18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).</li> <li>19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</li> </ol>		

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

IAP16 Rec'd PCT/PTO 21 SEP 2006

PTO-1390 (Rev. 07-2005)

Approved for use through 3/31/2007. OMB 0651-0021

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. APPLICATION NO. (if known, see 37 CFR 1.5)		INTERNATIONAL APPLICATION NO.		ATTORNEY'S DOCKET NUMBER	
10/593729		PCT/US 2005/009977		W602. PAT-49	
20. Other items or information: Transmittal Letter ; Express Mail Certificate ; Itemized Postcard ; Credit Card Payment form					
The following fees have been submitted				CALCULATIONS PTO USE ONLY	
21. <input checked="" type="checkbox"/> Basic national fee (37 CFR 1.492(a))..... \$300				\$ 300	
22. <input checked="" type="checkbox"/> Examination fee (37 CFR 1.492(c))					
If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)..... \$0				\$ 0	
All other situations..... \$200					
23. <input checked="" type="checkbox"/> Search fee (37 CFR 1.492(b))					
If the written opinion of the ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)..... \$0				\$ 0	
Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... \$100					
International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB..... \$400					
All other situations..... \$500					
TOTAL OF 21, 22 and 23 =				\$ 300	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)	RATE		
50 - 100 =	0 /50 =		x \$250	\$ 0	
Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).				\$ 0	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total claims	28 - 20 =	8	x \$ 50	\$ 400	
Independent claims	1 - 3 =	0	x \$200	\$ 0	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360	\$ 0	
TOTAL OF ABOVE CALCULATIONS =				\$ 700	
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.					
SUBTOTAL =				\$ 350	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).				\$ 0	
TOTAL NATIONAL FEE =				\$ 350	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				\$ 0	
TOTAL FEES ENCLOSED =				\$ 350	
				Amount to be refunded:	\$
				Amount to be charged	\$ 350

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

- a. ☐ A check in the amount of \$ \_\_\_\_\_ to cover the above fees is enclosed.
- b. ☐ Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ to cover the above fees.  
A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-2081. A duplicate copy of this sheet is enclosed.
- d. ☒ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

**NOTE:** Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

**Emery L. Tracy**  
**PO Box 1518**  
**Boulder, CO 80306**

Emery L. Tracy  
SIGNATURE

Emery L. Tracy  
NAME

34,081  
REGISTRATION NUMBER

**METHOD FOR INCREASING THE**  
**PRODUCTION OF HYDROCARBON**  
**LIQUIDS AND GASES**

Patent Application  
of

**Norman R. Morrow**  
**8 Antelope Avenue**  
**Laramie, Wyoming 82072**

**Zhengxin Tong**  
**2213 Arrowhead Lane, Apt. 185**  
**Laramie, Wyoming 82072**

Attorney

**Emery L. Tracy**  
**Reg. No. 34,081**  
**P.O. Box 1518**  
**Boulder, Colorado 80306-1518**  
**Telephone: 303-443-1143**  
**Facsimile: 303-443-1415**

Docket No.: W002.PAT-49

**EMERY L. TRACY**  
ATTORNEY AT LAW

1AP16 Rec'd PCT/PTO 21 SEP 2006  
10/593729

*Patents, Trademarks, Copyrights, and  
Related Intellectual Property Matters*

**Mailing Address:** P.O. Box 1518  
Boulder, Colorado 80306

**Telephone:** (303) 443-1143  
**Facsimile:** (303) 443-1415

**Street Address:** 730 - 29<sup>th</sup> Street  
Boulder, Colorado 80303

**E-mail:** etracy@boulder.net

September 21, 2006

COMMISSIONER FOR PATENTS  
P.O. BOX 1450  
ALEXANDRIA, VIRGINIA 22313-1450

**Docket: W002.PAT-49**

Sir:

Transmitted herewith for submission to enter the national stage under 35 U.S.C. § 371 is:  
**PATENT APPLICATION** of:

**Norman R. Morrow et al**

**For: METHOD FOR INCREASING THE PRODUCTION OF HYDROCARBON  
LIQUIDS AND GASES**

Enclosed are:

- 1 Transmittal Letter to the United States Designated/Elected Office Concerning a Submission under 35 U.S.C. § 371 (Form PTO-1390) and copy with Deposit Account Authorization;
- 1 Cover sheet;
- 1 Copy of International Application;
- 1 Express Mail Certificate;
- 1 Preliminary Amendment
- 1 Declaration and Power of Attorney;
- 1 Postcard; and
- 1 Credit Card Payment Form in the amount of \$ ~~1,590.00~~ <sup>\$350.00</sup> for the basic national fee under 37 C.F.R. § 1.492(a).

Respectfully submitted,

NORMAN R. MORROW et al

By: 

Emery L. Tracy, Reg. No. 34,081  
P.O. Box 1518  
Boulder, Colorado 80306  
Phone: (303) 443-1143 Fax: (303) 443-1415

Enc.

10/593729

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Norman R. Morrow et al	
Filing Date	:	Herewith	
For	:	METHOD FOR INCREASING THE PRODUCTION OF HYDROCARBON LIQUIDS AND GASES	
Docket No.	:	W002.PAT-49	

## CERTIFICATE OF EXPRESS MAILING

"Express Mail" mailing label number: EV678339314USDate of Deposit: September 21, 2006

I certify that the following paper(s) and/or fee(s) are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR § 1.10 on September 21, 2006, addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, for submission to enter the national stage under 35 U.S.C. § 371:

1. Transmittal Letter to the US Designated/Elected Office Concerning a Submission under 35 U.S.C. § 371 and copy with Deposit Account Authorization;
2. Copy of International Application;
3. Cover sheet;
4. Express Mail Certificate;
5. Declaration and Power of Attorney;
6. Preliminary Amendment;
7. Postcard; and
8. Credit Card Payment Form in the amount of \$ 350.00 for basic national fee under 37 C.F.R. § 1.492(a).

Respectfully submitted,

NORMAN R. MORROW et al

By: 

Emery L. Tracy, Reg. No. 34,081

P.O. Box 1518

Boulder, Colorado 80306

Phone: (303) 443-1143 Fax: (303) 443-1415